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DATE: 8/6/97

PAGES: 6

(No. of pages including this cover sheet)

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ART UNIT 1816

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INFORMAL COMMUNICATION

FAXED RESTRICTION REQUIREMENT--PROVISIONAL ELECTION REQUESTED

THIS COMMUNICATION IS EQUIVALENT TO A REQUEST FOR TELEPHONIC ELECTION. IT IS SENT IN LIEU OF A TELEPHONIC REQUEST DUE TO THE COMPLEX NATURE OF THE RESTRICTION REQUIREMENT. ELECTION BY TELEPHONE WILL EXPEDITE EXAMINATION OF THIS APPLICATION. SHOULD APPLICANT NOT TIMELY ELECT BY PHONE, A FORMAL RESTRICTION REQUIREMENT WILL BE MAILED.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

Inventions 1-10. Claims 1-3 as they encompass or recite an MHC Class I supermotif selected from one of those enumerated below:

- I. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Met
- II. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Ile
- III. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Phe¹

¹ Conventional aromatic amino acids encompass Phe, Try and Tyr which the restriction requirement specifically enumerates. It is not the Examiner's intent to imply that other unconventional aromatic amino acids or D-amino acids are excluded. Applicant may also choose

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- IV. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Trp
V. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Tyr

VI. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Met
VII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ile
VIII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe
IX. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp
X. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr

Inventions 11-20. Claims 1-3 as they encompass or recite an MHC Class II supermotif selected from one of those enumerated below:

- XI. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Met
XII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Ile
XIII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Phe
XIV. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Trp
XV. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Tyr

XVI. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Met
XVII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ile
XVIII. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe
XIX. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp

to elect such an unconventional residue.

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XX. Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr

2. The inventions are distinct, each from the other because of the following reasons: Inventions I-XX are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together, or they have different modes of operation, or they have different functions, or they have different effects. (MPEP § 806.04, MPEP § 808.01). In the instant case the classes of peptides comprising different supermotif amino acid sequences have distinct structures, MHC Class I (or Class II) binding properties and/or comprise structurally and functionally distinct T cell epitopes. A search of each distinct peptide motif or structurally distinct peptide places an undue burden upon the Examiner. Further MHC class I binding peptides of different lengths, i.e. 9 residues vs 10 residues would be expected to have distinct binding properties due to the constrained size of the MHC Class I binding cleft.

3. As these inventions are distinct for the reasons given above and the search required for each Group is not required for the other Groups, restriction for examination purposes as indicated is proper. As these inventions are distinct for the reasons given above and have acquired a separate status in the art

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because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. Applicant is required to point out which species of peptides enumerated by claim 2 correspond to the elected invention.

5. The Examiner will consider rejoining groups encompassing nonapeptides or decapeptides having different binding motifs if the Applicant submits evidence or identifies such evidence now of record showing the HLA binding motifs having different amino acid sequences to be obvious variants or clearly admits on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

The Examiner would be willing to examine both L- and D-substitutions in the elected motif if Applicant provides evidence that peptides with the same L- or D-AA substitutions have similar binding properties. E.g. For Invention I that a peptide with a carboxyl-terminal D-Met would have equivalent binding properties as one with L-Met.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M. Cunningham, Ph.D, J.D. whose telephone number is (703) 308-3968. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.